THE VETERINARY RECORD

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S., 1888

No. 6. FEBRUARY 7, 1948 VOL. 60

"Bull-dog" Calves (Chondrodystrophy, Achondroplasia) in a Friesian Herd

By

J. BERGER* AND J. R. M. INNES**

INTRODUCTION

It is well known that "bull-dog" calves occur in the Dexter breed of cattle. A most important paper on this subject is that by Crewe (1923) (see also Seligman, 1904); a full account is given of all aspects together with a history of the Dexter breed. The main pathological features include: (1) *Foetal anasarca*—invariably associated with death and abortion of the foetus about the sixth month; the cause of this lesion is unknown although suggested to be due to an absence of the thoracic duct; (2) *Hydramnios*—the normal amount of amniotic fluid in the cow is about 5 to 6 litres, that of the allantois about 6 to 15 litres; Crewe records 160 litres being evacuated from one case; (3) *Hydrocephalus*; (4) *Skeletal changes*—brachycephaly is marked, the skull being reduced in length and enlarged in width; the head is large with a bulging forehead and parietal eminences, with a depressed nasal region and shortness of base of skull; the hard palate may be absent; there is shortening of the long bones, particularly the proximal ones of the limbs, and there may be malformations of the vertebral column—scoliosis, kyphosis, lordosis or complications of all three.

All these features of "bull-dog" calves have been compared with the classical human achondroplast. According to Harris (1933) the term achondroplasia was introduced to describe the dwarf-like features of certain human foetuses, although the outward perversions of these have been known since Egyptian days. The term chondrodystrophy was suggested by Kaufman (see Harris) to emphasise that the condition was essentially that of malnutrition and perversion of cartilaginous growth rather than that of absence of cartilage. Harris stresses this point and describes the cartilaginous lesions in both the human and calf condition; the cartilage cells at the epiphysial lines of the long bones fail to become orientated into regular columns and there are widespread focal areas of mucoid degeneration with the formation of cysts. These alterations in the epiphysial centres of ossification produce long bones which are telescoped in their length.

The full pathogenesis either of the calf, or human, malformation is not understood although the genetic basis is well recognised. Crewe suggested that the "bull-dog" calf results from a malfunctioning of the pituitary gland between the second and third month of intra-uterine life complicated later by hyperplasia of the thyroid gland followed by involution; normal ossification in cartilage cannot thus take place. It remains to be settled whether the growing cartilage is primarily affected by the recessive gene or whether it is involved subsequent to some endocrine disturbance.

Although the "bull-dog" is commonly associated in cattle only with the Dexter breed, Wriedt (1930) has described (and studied the genetical aspect) the same lethal condition in Telemark cattle in Norway. Chondrodystrophy has also been recognised in dogs and more recently in rabbits (see Grüneberg, 1947).

HISTORY OF THE HERD

Self-contained herd averaging 15 to 20 milking stock; condition of herd always good although recent tuberculin test showed 90 per cent. reactors in adult stock; occasional abortion due to *Br. abortus*, 1942-43; all female stock vaccinated with strain 19 *Br. abortus* vaccine; much infertility during 1943 and to a lesser degree in 1944, clinically suggestive of *Trichomonas foetus* infection; the same bull was employed for service since 1942; 44 normal pregnancies were completed up to January, 1946.

From January, 1945 to January, 1946, parturitions were as follows:—

January, 1945	Cows 18, 19, 23	Normal full-term calf.
March "	Cows 14, 24 ...	" " "
April "	Cow 20 ...	" " "
	Cow 22 ...	"Bull-dog," Case 1.
June "	Cow 17 ...	Aborted 3-month foetus.
September "	Maiden heifers 28, 29 ...	Normal calves.
	Cow 11 ...	Normal twin calves.
October "	Cow 25 ...	Normal calf.
	Cow 4 ...	" "
	Cow 16 ...	Twin calves (one "bull-dog," Case 2).
	Cow 26 ...	Normal calf.
December "	Cow 3 ...	" "
January, 1946	Cow 12 ...	" "
	Maiden heifer 27	"Bull-dog," Case 3.
	Maiden heifers 2, 6 ...	Normal calves.
	Cow 18 ...	"Bull-dog" calf, Case 4.
	Cow 21 ...	Normal calf.

The bull* was born in October, 1941, and was purchased September, 1942; it was the only bull used in the herd since 1942. The bull showed no abnormality of the reproductive organs on clinical examination.

CASE HISTORIES

Case 1.—Cow 22,* five years old. Calved normal full-term calf December, 1943; served April 19th, 1944 and July 5th, 1944; calved April 9th, 1945 (278 days); large "bull-dog" calf delivered by farmer with difficulty and died during delivery; foreshortening of upper and lower jaws; marked hydrocephalus; scoliosis; gross shortening of the upper limbs.

Case 2.—Cow 16, seven years old. Calved normal full-term calf May, 1942; aborted eight months foetus August, 1943; aborted six months foetus April, 1944; served December 14th, 1944 and January 22nd, 1945; calved twin heifer calves October 25th, 1945 (276 days); the first was normal and healthy; the second was dead (about seven months) and showed "bull-dog" characteristics of the head (according to the description by the farmer).

Case 3.—Maiden heifer 27, three years old. Served on numerous occasions from May 16th, 1944, until she held to service March 18th, 1945; adhesions of left ovarian bursa palpable *per rectum*; calved a full-term "bull-dog" calf December 26th, 1945 (283 days); calf died during delivery. (Attended by Mr. W. F. Morton, M.R.C.V.S.)

Case 4.—Cow 18, four and a half years old. Normal calf September, 1943, and January, 1945; served April 10th, 1945; calved full-term heifer "bull-dog" calf January 15th, 1946 (280 days); embryotomy necessary for delivery; calf alive at start (see Fig. overleaf).

Post-mortem EXAMINATION (Case 4)

Anatomical Findings.—Body weight 45 kg.; gross "bull-dog" conformation of head with bulging cranium over depressed nose (Fig. 1); overshot lower jaw with protruding tongue; absence of hard palate; open cranial sutures; extreme degree of internal hydrocephalus; cerebral hemispheres almost completely atrophied with only a thin shell of grey matter left: cerebellum, mid-brain, and brain stem macroscopically normal in size and appearance; gross right-sided scoliosis; marked shortening of scapulae, humeri and femora; slight opacity of lens; moderate enlargement of thyroid, weight 26 grammes (cf. weight of thyroid; normal calf (body weight 68 kg.) 23 grammes); volume of cranial contents about 1,500 c.c.

COMMENT

The macroscopic appearances of the one case, on which it was possible to make some pathological examination, are identical with those seen in the "bull-dog" calves from the Dexter breed. There was no irregular breeding history in the cows related to cases 1 and 4 and both had given birth to normal calves previously; these were the cases which showed the greatest degree of foetal malformation.

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* The pedigree of the bull and cows are not given for obvious reasons.

Front view

Lateral view

BULL DOG CALF, FRIESIAN—FULL TERM, 280 DAYS

Although the foetuses apparently all showed features of chondrodystrophy there was no apparennt foetal anasarca.

Histological examination of the bones was not possible; lack of suitable control material from foetal and full-term normal calves of the same breed makes it inadvisable to discuss in detail the histology of the thyroid, pituitary and adrenal glands which were sectioned. The thyroid was an obvious hypoplastic gland with follicles of the foetal type—solid cords of cells or small follicles with little or no lumen. This omission on the histological aspect does not detract from the practical value of the observation nor does it influence the pathological diagnosis of "bull-dog" calf.

Much attention has been directed in recent years to the occurrence of lethal and sub-lethal factors in domesticated animals which produce a wide variety of pathological conditions, *e.g.*, hairless and amputated calves, cerebellar atrophy, spina bifida, to mention only a few. It is first of all important from the practical breeding point of view that records be made of apparently new malformations or alternatively malformations occurring in species or breeds of animals not recorded previously. In this instance its occurrence in the Friesian (for the first time) is of special significance to the pedigree breeder for obviously bulls responsible for the spread of lethal factors should certainly not be used in artificial insemination work.

Secondly, the recent valuable book of Grüneberg (1947) focuses attention upon the significance of studies on animal heredopathology (domestic and laboratory animals). Such observations as these therefore have far wider implications besides the mere practical ones. As Grüneberg indicates, "congenital" (here we use the word to mean that the animal was born with it and that birth is an incident in which the animal passes from womb to the world outside) diseases offer an approach to a study of "pure" diseases, possibly producible at will under controlled environment, in which the initial lesion phase can be studied (most important) by using the direct method of investigation.

Summary

1. Cases of "bull-dog" calves in a pedigree Friesian herd are recorded.

2. Such observations are of practical importance to the breeder but they also emphasise the significance of pathological studies on inherited diseases.

Acknowledgment (J. R. M. L.).—The preparation of this paper (and others) has been made possible while holding a temporary research grant from the Veterinary Educational Trust, to whom thanks are due.

REFERENCES

CREWE, F. A. E. (1923.) *Proc. Roy. Soc.* Series B. 95. 228.
GRUNEBERG, H. (1947.) "Animal Genetics and Medicine." Hamilton, London.
HARRIS, H. A. (1933.) "Bone Growth in Health and Disease." Oxf. Univ. Press, London.
SELIGMAN, C. G. (1904.) *J. Path. Bact.* 9. 311.
WRIEDT, C. (1930.) "Heredity in Livestock." London.

SUCCESSFUL TRANSATLANTIC TRANSPORT OF SEMEN

The Italian Experimental Station for Artificial Insemination (Lazzaro Spallanzani) reports the results of the first experiment of transatlantic transport of semen from the United States. This experiment had been promoted by UNRRA on the proposal of Professor Malterre; it was conducted by Professor T. Bonadonna, Director of the Station.

In the first fortnight of January in the various Italian provinces there were born over 20 calves from cows of various breeds, using semen of bulls from the Experimental Station in Sussex, New Jersey (U.S.A.), the semen having been shipped by air.

All births took place regularly and the calves were born healthy, vigorous and of normal build. A detailed and illustrated report will presently be forwarded to the Institutions, Ministries and Associations concerned. Further experiments as the result of later arrivals of semen by air are in progress.

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VICTORIA VETERINARY BENEVOLENT FUND

IN MEMORY OF MR. JOHN WILLETT, M.V.O., M.R.C.V.S.

The Secretary gratefully acknowledges the receipt of donations from the following:—

Mrs. Barratt Stennett and other relations, Lady Ellisson, Mr. G. P. Male, Major L. P. Pugh, Royal College of Veterinary Surgeons, Royal Counties Veterinary Society, Exors. of Mr. T. A. Saunders, Dr. and Mrs. Sutherland-Rawlings, A. M. and D. M. Willett, R. A. Willett.

Total received to January 27th, 1948, £41 9s.

* * * * *

The B.B.C. has granted U.F.A.W. (The Universities Federation for Animal Welfare) a Broadcast Appeal on Sunday, February 22nd, at 8.25 in the Home Service (342.1 m.). The appeal will be given by Major C. W. Hume, Founder and Chairman of U.F.A.W.

Brucellosis (Bovine Contagious Abortion)*

By

T. DALLING

We are often asked questions on vaccination against brucellosis. Some of the points are discussed in the following notes:—

Fragility of the Vaccine.—No. 1 vaccine as issued from the Veterinary Laboratory of the Ministry of Agriculture and Fisheries, Weybridge, consists of a suspension of living *Br. abortus* organism (Strain 19) of a measured concentration. Observations have shown that the organisms in the suspension gradually die off; a time arrives, therefore, after which the number of living organisms left in the suspension is so reduced that it is doubtful whether they are capable of stimulating a satisfactory degree of immunity. The expiry date of the vaccine has been so arranged that if used before that time there should be sufficient living organisms in the suspension when injected to give rise to a satisfactory immunity. It has to be pointed out, however, that good results can only be expected if the requisite number of *living* organisms are injected. The organisms are fragile and easily destroyed; exposure to warm conditions and shaking as when carried round in a motor vehicle for any length of time hastens their death. Hence, although the vaccine may be used before the expiry date on the bottle, there may be few, if any, living organisms present if the vaccine has been mishandled. It is therefore of the greatest importance to ensure that the vaccine is kept in a cool place, preferably in a refrigerator, and is used as soon as possible after it is taken from the refrigerator or cool place. It is highly deleterious to the vaccine to keep it in a motor car travelling round the country. Veterinary surgeons should order vaccine in quantities they are likely to use soon after receipt and should take with them only the number of doses they intend to use on that round. A vacuum jar for the transport of vaccine is particularly useful. If such a jar is not available every precaution should be taken to insulate by using corrugated cardboard boxes, etc.

Vaccination Technique.—From time to time reports of excessive reactions at the site of inoculation are received; occasionally, we have reports of abscess formation. It is essential that strict attention be given to the technique of vaccination. It must be appreciated that the vaccine consists of a suspension of living organisms and that no preservative or antiseptic is present; the occurrence of abscess formation means faulty technique. Syringes and needles must be sterilised before use; it is good policy to provide syringes and needles only for use in this vaccination work. It is also good policy to practise disinfection of the skin at the site of inoculation. The most suitable site as shown by the results of experience and observation is the chest wall just behind the point of the elbow. Care should be taken to ensure that the injection is made *subcutaneously*. Following the injection the site should be gently massaged to cause dispersal of the vaccine; much importance is attached to this precaution which obviates persistent local reactions which are sometimes reported.

After-effects of Vaccination

(*a*) Local reactions. A swelling occurs at the site of inoculation. It is usually present within 12 hours but varies in its character. It is not uncommon to find that the swelling is hot, tense and painful; these occurrences should not cause any alarm. Provided the inoculation technique has been satisfactory, the swelling will have disappeared and the site will be normal by the fifth or tenth day. With faulty technique, abscess formation may occur and later there may even occur the persistent local reactions referred to above.

(*b*) Systemic reactions. These vary greatly from animal to animal. Most vaccinated animals show a rise in temperature (103° F. to 105° F.), but it is purely transient. Some animals have shown a very high rise—up to 108° F. The general symptoms accompanying a high temperature are to be expected, *e.g.*, inappetence, rigors, refusal of food, accelerated respiration and in the case of a lactating cow, drop in milk yield. The severity and duration of these symptoms are in direct relation to the degree and duration of the increased temperature. In some animals it is of very short duration and the general symptoms are correspondingly either very slight or are not observed; in others, the rise is greater and persists longer with more marked general disturbance. It is exceptional to find severe symptoms. No special treatment of such affected animals is recommended; any treatment would be that normally practised in cases of high temperature.

Housing of vaccinated Animals

It has been shown from experience that it is advisable to house animals for about four days following vaccination; this applies to animals of all ages.

Age to vaccinate Animals

As with immunity in general, animals vaccinated against brucellosis are in a high state of immunity within a few weeks following the injection of vaccine, and the immunity falls very gradually unless it is reinforced by either a further injection of vaccine or exposure to natural infection. Further immunity is only stimulated by natural infection if the animal is already in such a high state of resistance that it withstands infection sufficiently to prevent the occurrence of the natural disease. It follows, therefore, allowing a few weeks for the development of immunity, that the nearer vaccination is carried out to the time of exposure to natural infection, the more solidly immune will the animal be when it meets the infection. The injection of Strain 19 is followed by the formation of agglutinins, and injected animals become reactors to the agglutination test. This fact controls in some measure the age at which vaccination is carried out. The agglutinins gradually disappear following vaccination; in calves, vaccinated at about six months of age, about 85 per cent. have become negative reactors by the time they are of breeding age. The older the animal when vaccinated the longer do the agglutinins persist. In pedigree or other herds where it is important that negative reactions to the agglutination test should be maintained it is advisable to vaccinate calves at four to six months of age. In herds in which reactions to the agglutination test are of no importance, vaccination may be carried out at different ages, depending on the circumstances in the herd. Calves under four months of age should not be vaccinated; they may not have the mechanism to develop immunity. In carrying out a vaccination programme in an already infected herd, it is sometimes convenient to vaccinate all non-pregnant stock, including adult animals. While it is unlikely that the vaccination of already infected animals will have any benefical results, the injection of vaccine into them will have no harmful results.

Bulls and Bull Calves

Neither bulls nor bull calves should be vaccinated. We have no accurate knowledge of the results of the use of Strain 19 vaccine in male animals. As in female stock agglutination titres are found after treatment of bulls and bull calves with this vaccine and it is impossible to differentiate between titres due to vaccination and to natural infecton. Natural infection in bulls is probably more common than is generally supposed. Evidence is accumulating that transmission of natural infection to bull calves occurs readily from infected cows, *e.g.*, bull calves nursed by infected cows and thus receiving infected milk. *Br. abortus* probably infects the genital organs of young bulls with considerable ease. A report from America suggests that Strain 19 may become located in the genital organs of young bulls following vaccination.

Duration of Immunity

It is somewhat difficult, with our limited knowledge in this country, to assess the duration of immunity following a single vaccination. We know from observations in the field that between 5 to 6 per cent. of vaccinated calves fail to produce agglutinins. This may indicate either that the vaccinations have been imperfectly carried out or that the calves have failed to respond. On these grounds there is therefore a case for revaccination at some stage before maturity is reached. Further, as already said, exposure to natural infection will stimulate the degree of immunity in an already immune animal. It must follow, therefore, that the decision whether or not to re-vaccinate must be made by the veterinary surgeon who has knowledge of the herd and the chances of exposure to natural infection. Following calfhood vaccination in herds in which positive agglutination reactions are no disadvantage, it might be of benefit, as an additional precaution, to re-vaccinate soon before the heifers are bred for the first time. The latest information from America, however, is that calfhood vaccination (single dose) gives rise to immunity which persists at a high level for four or even five pregnancies; the tests which were applied were severe and well controlled.

It should be noted that the official calfhood vaccination scheme provides for only one vaccination; re-vaccination would have to be done at the owner's own expense.

Exposure to Infection

Although vaccination gives rise to a high degree of immunity, preventive measures should be adopted to minimise the introduction of natural infection. This is necessary because immunity is only relative to the degree and virulence of infection and

(*Concluded at foot of col.* 1, *p.* 60)

* This article has recently been privately circulated.

CLINICAL COMMUNICATION

Diesel Oil Poisoning in Cattle

E. A. GIBSON and J. L. LINZELL

Few cases of poisoning by the aliphatic saturated hydrocarbons have been reported in the British veterinary literature.

I. Fundaminsky (1936) reported a case of sudden illness and death with convulsions in an adult foxhound caused by the malicious administration of about four grammes of paraffin oil. The chief *post-mortem* findings were subcutaneous petechiae, gastro-enteritis and haemorrhages into the lungs, liver, kidneys and spleen.

A. Shrewton (1937) treated a tympanitic cow that had been given one pint of paraffin and one pound of magnesium sulphate by its owner. The animal died on the fifth day, having shown symptoms of vomiting before death. *Post-mortem* examination revealed inflammation of the abomasum and terminal oesophagus, the latter showing necrosis of the mucous membrane and impaction of its terminal nine inches with hay. Doubt as to the toxic role played by paraffin in this case was expressed by A. S. Harris (1937)[5] who stated that in Ireland he had frequently given paraffin oil (one pint by stomach tube) to 9 to 12 months old heifers for parasitic gastritis. Although the animals were off feed for two days, he had not seen any deaths due to this treatment.

That paraffin oil can indeed cause death in adult cattle was shown by G. Eaton (1943)[3] who reported two deaths after the animals, which were very thirsty, had voluntarily imbibed an unknown quantity. One animal showed symptoms of nervous excitement, blindness and inco-ordination before death. He estimated that about one gallon was drunk and points out that farmers frequently give cattle smaller doses of paraffin to relieve temporarily the diarrhoea in Johne's disease before sale.

The present case confirms the toxicity of the petroleum fuel oils and the fact that thirsty cattle will drink them voluntarily.

History.—The case occurred in a herd of eight cross-bred dairy cows on a small isolated farm where all water had to be carried some distance by hand. The only source of water for the cows was a large trough outside the cowshed into which about five gallons of diesel oil was inadvertently poured by an aged attendant with poor eyesight and no sense of smell. The cattle had access to the trough for a short period at 10 a.m. after lying in all night without water and were not seen again until the evening milking at 7 p.m.

Symptoms.—May 14th, 1946. 8 p.m. There was a strong smell of "paraffin" in the breath of six cows, which all showed varying degrees of depression. All those affected were coughing, salivating and shaking their heads. The temperatures were sub-normal in each case (99 to 100° F). One Jersey type cow was in a state of collapse—temperature 97° F., pulse fast and almost imperceptible, and the respiration rapid and shallow. The animal could barely stand. The milk of the more badly affected was also tainted.

Course: Three deaths occurred at 12, 24 and 48 hours after ingestion of the polluted water. During this time the animals were eating a little and ruminating but were dull and constipated. The milk was unusable and in one case milking appeared to cause pain. There were visible oil droplets in the faeces. Forty-eight hours after the ingestion of the oil two cows were showing marked bronchial râles but their temperatures were still slightly sub-normal. In one case these râles were still evident 14 days later. In the non-fatal cases recovery was progressive but the odour of the oil was apparent in the breath and milk for four to five days.

Treatment: This was empirical and did not appear to influence the course. Each cow was given several two pint doses of liquid paraffin and half to one grain doses of strychnine subcutaneously.

Pathology: *Post-mortem* examinations were carried out and in each case the carcase reeked of diesel oil with visible oil droplets in the alimentary canal and lungs. A more detailed examination of the third cow to die showed the following:—

The buccal cavity, oesophagus and rumen appeared normal. The small intestine was inflamed and the colon contained thick stringy yellow mucus. The mesenteric lymph glands were normal except for tuberculous nodules. The liver, spleen and kidneys were macroscopically normal but there were ecchymoses under the bladder mucosa. There were also petechiae on the visceral and parietal pericardium and on the visceral pleura. There was haemorrhagic tracheitis and severe patchy bronchitis and broncho-pneumonia, especially in the apical and cardiac lobes. The bronchial lymph modes were enlarged and haemorrhagic.

Specimens were submitted to the Pathology Department, Royal Veterinary College, from which E. Cotchin, Esq., M.R.C.V.S., reported as follows:—

"There is acute bronchitis and broncho-pneumonia with great congestion, oedema and haemorrhage and some necrosis of the lung parenchyma. There are no marked changes in the kidney, liver or rumen but the small intestine shows loss of surface epithelium and cell infiltration (mostly eosinophils), which, however, might be due to *post-mortem* autolysis and co-existent parasitism. There is congestion of the peri-acinar capillaries of the mammary gland but no obvious haemorrhage into the gland. The important changes seem to be pneumonia, and congestion of the mammary gland; the latter is probably due to excretion of irritant material via the udder, and it is probable that aspiration into the lungs caused the former."

Discussion

The term diesel oil refers to any type of fuel oil suitable for diesel engines. They are chiefly derived from two sources.

Paraffin and one type of diesel oil are both derived from crude petroleum oil and differ only in the molecular weights of their contained saturated aliphatic hydrocarbons. They both have the familiar "paraffin" smell. Another type of diesel oil is obtained from coal tar and consists of a mixture of aromatic hydrocarbons, including phenols and cresols of obvious and known toxicity. Oils from the latter source however have a cresol smell and although the oil in this case was not examined by an expert, there is little doubt that it was derived from crude petroleum. This case, therefore, can be legitimately considered with the reported cases of paraffin poisoning. It must not be necessarily assumed, however, that the hydrocarbons are the toxic agents, for diesel oils are often "doped" to lower the flash point, with such compounds as ethyl nitrate and up to 3 per cent. of sulphur-containing substances, chiefly organic sulphides, are frequently present in all petroleum fuel oils. In addition even fuel oils derived from petroleum may contain some aromatic compounds and in any case vary considerably in composition. It is unfortunate that no analysis was made in this case so that no statement can be made as to the exact composition of the oil concerned.

If the hydrocarbons are indeed the toxic agents then the toxicity seems to depend on their M.W. and mobility. Petrol, containing members of the lowest M.W., has been shown to be toxic for man in small amounts and liquid paraffin (medicinal), containing hydrocarbons of high M.W., is non-toxic. Paraffin and diesel oil are intermediary and as might be expected appear to be toxic if taken in sufficient dosage.

Poisoning by kerosene (paraffin) of a petroleum source is well recognised in America, particularly in children between one and three years, who frequently drink it voluntarily. The death rate is not high (6·7 per cent.)[2] but it varies with the variation in the composition and source of the kerosene.

An interesting feature of these human cases is the high incidence of lung involvement, 40 to 50 per cent. showing bronchial râles and 70 per cent. showing lung mottling to X-rays. These symptoms are shown within a very short time of ingestion and are often very marked in cases with little other systemic disturbance. The *post-mortem* findings in fatal cases in children and experimental animals have been identical to those noted here—oedema, haemorrhage and cellular infiltration, but some difference of opinion has arisen as to the pathogenesis of these lesions.

Although Le Gludie and Turlais (1914)[7] showed that 20 c.c. of petrol given to rabbits by stomach tube produced pulmonary congestion and punctate haemorrhage, subsequent workers were

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natural infections may be so virulent that they will overwhelm all but the highest degree of immunity. Such a high immunity usually follows natural infection. More attention will have to be given to the part played by infected bulls some of which apparently transmit infection and can do much damage even in a vaccinated herd.

Infertility following Vaccination

This subject is the cause of much discussion. The organisms do not settle in any organ or tissue of the body and there is no evidence from the results of many investigations to suggest that animals vaccinated with Strain 19 vaccine are in any way rendered infertile, temporarily or permanently. All the evidence points in the contrary direction in the sense that infertility is reduced to a great extent in a herd in which contagious abortion is under control by vaccination. In Strain 19 vaccine we have a potent weapon in combating brucellosis and consequently in preventing infertility which accompanies and follows infection with *Br. abortus*.

of the opinion that the lung damage was due to aspiration at the time of ingestion or from regurgitation. Waring (1933) gave 100 to 250 c.c. kerosene to three dogs by stomach tube with little ill effect but four dogs given as little as 5 to 10 c.c. into the trachea, all died with symptoms of convulsions, coma, dyspnoea and sub-normal temperature. This suggests that the case reported by Fundaminsky (1936)[4] was due to aspiration. Lesser, *et al.* (1943)[8] showed that although 20 to 50 c.c. kerosene by stomach tube killed two out of six rabbits, lung involvement was noted only when 0·75 to 2·0 c.c. was given by trachea. In a more extended study Deichmann *et al.* (1944)[2] established the lethal doses by various routes and showed that guinea-pigs were more susceptible than rats or rabbits, but noted that young rats were more susceptible still. In confirmation of the findings of Le Gludie and Turlais they definitely proved that the above-noted lung lesions can develop quickly after the intraperitoneal injection of kerosene in rabbits.

Since the cows in this case were not seen until some hours after the ingestion of the diesel oil it is not known for certain whether aspiration occurred, but the finding of visible oil droplets in the lungs suggests that it did.

The only rational line of treatment suggested by this short survey of the literature is gastric lavage in species where this is practicable, combined with the transfusion of hypertonic glucose and the administration of oxygen to combat the lung oedema.

Summary

Three out of six cows died after voluntarily drinking an unknown quantity of water polluted with diesel oil, thus confirming the toxicity of the petroleum fuels for cattle.

References

(1) Barbour, O. (1926.) *J. Amer. med. Ass.* **87**. 488.
(2) Deichmann *et al.* (1944.) *Ann. int. Med.* **21**. 803.
(3) Eaton, G. (1943.) *Vet. Rec.* **55**. 19.
(4) Fundaminsky, I. (1936.) *Ibid.* **48**. 1072.
(5) Harris, A. S. (1937.) *Ibid.* **49**. 497.
(6) Lavenstein, A. F. (1945.) *J. Pediat.* **26**. 395.
(7) Le Gludie, H., & Turlais, C. (1914.) *Ann. d'Hyg. publ. Paris.* **21**.
(8) Lesser *et al.* (1943.) *J. Pediat.* **23**. 352.
(9) Nunn, J. A., & Martin, F. M. (1934.) *J. Amer. med. Ass.* **103**. 472.
(10) Pinkerton, H. (1928.) *Arch. Path & Lab. Med.* **5**. 380.
(11) Price, J. P. (1932.) *J. Amer. med. Ass.* **99**. 214.
(12) Shrewton, A. (1937.) *Vet. Rec.* **49**. 454.
(13) Steiner, M. M. (1947.) *Amer. J. Dis. Child.* **74**. 32.
(14) Waring, J. I. (1933.) *Amer. J. med. Sci.* **185**. 325.

Veterinary Service in Britain

Dr. Schofield's Impressions

We reproduce below, in the confidence that the impressions of so well qualified a commentator will be of interest to our readers, the contribution on veterinary service in England and Scotland made, following his recent visit to Europe, by Professor Frank W. Schofield, of the Ontario Veterinary College, in the December 4th issue of the College journal, *The Fluoroscope*.

In both England and Scotland one does not have to visit many institutions or contact many practitioners to realise that there are many men well trained in science and alert to the significance for the veterinary profession of the economic and political changes which affect profoundly life in Britain to-day. The shortage of food for the people and feed for the animals has emphasised anew the seriousness of the losses due to preventable disease among livestock. The Eleventh International Veterinary Congress which will be held in London, July, 1949, will have the theme "Animal Disease in its Relationship to the Food Supply." This is becoming an urgent matter to a country harassed by a totally inadequate supply of food.

Undoubtedly this is one of the important factors which has determined the present direction in veterinary education as it enters into a more intimate association with scientific agriculture. The increasing number of students from urban areas also necessitates the closer association of agricultural and veterinary colleges.

This is well exemplified in the curriculum now being drafted by Principal Mitchell and the staff of the Royal "Dick" Veterinary College, Edinburgh. In the proposed curriculum the fourth year students will be in residence together with agricultural students on a large farm estate near Edinburgh during the entire fourth year. Lectures will be given and clinics held at this field station and the students and staff will carry on an ambulatory clinic. A hospital for large animals will be operated. Other British veterinary colleges are moving in a similar direction. It is proposed to open two more veterinary colleges, at Cambridge and Bristol, it is hoped as faculties of the respective universities. This will bring up to six the veterinary colleges in Great Britain. A number of scholarships of $1000.00 a year are given to worthy students. These are "tax free" and may be continued for three years in the case of an exceptional student. Of the 2,000 veterinarians, 75 per cent. are in rural practice. Veterinarians are urgently needed and are in "short supply" at the moment due to the increasing demand from the Ministry of Agriculture for Veterinary Inspectors. The present pay, however, is not very attractive and apparently the cause of some discontent.

Both the students and staff of the Ontario Veterinary College will rejoice in the fact that the President of the National Veterinary Association of Great Britain is an O.V.C. graduate, Dr. Guy Anderson. This is one of the highest honours which can come to any veterinary surgeon. Unfortunately we have got into the habit of associating the "World's Biggest and Best" with the North American Continent. This is chiefly due to our provincialism. I doubt if there is a veterinarian on this continent with a finer or more versatile mind and as large a practice as Dr. Geo. Gould, Southampton. I had the pleasure of accompanying him on his rounds for one day. The most interesting case was one of traumatic reticulitis in a cow. The speed, accuracy and excellent technique in the preparation (paravertebral anaesthesia) and performance of the operation (rumenotomy) were those of an usually skilled surgeon. Dr. Gould usually employs seven assistants as well as putting in a full day himself attending to the more difficult cases. It was interesting to observe his intimate knowledge of good farm management and practice, especially as it applied to breeding, crop rotation and pasture lands. It was comforting to be taken to see a "really modern stable" and discover that the ultra-modern equipment came from Beatty Brothers, Fergus (a suburb of Guelph). Riding with another practitioner in Scotland, the amiable Dr. Ferguson, Crieff, who by the way is the veterinarian to the famous Mills Hill Farm, I was fortunate enough to see a case of "grass-sickness." This disease of horses in Perth County has baffled the ablest veterinary research workers for more than 25 years. Another object of real interest was the grass dehydrating machine at Drummond Castle—a large machine costing about $25,000 and capable of drying about 80 pounds of grass in twelve minutes. This dehydrated grass may be used as a substitute for concentrate as it contains 16 to 18 per cent. protein. Also it is valuable in the treatment of acetonaemia. Cobalt, which Dr. Henderson recently found to be of value in certain cases of acetonaemia, is used in the treatment of this disease in both Holland and Norway.

Research

Excellent research is being done at a number of different centres. A recent and rather unusual centre for research is the Compton Manor Estate, Berks. The station comprises 1,600 acres of farm land, a laboratory, two large herds of cattle and colonies of guinea-pigs, rabbits, hamsters, mice and poultry ranches. These different species are bred by the thousand but always from carefully selected and mated stock. The main purposes of this station are two-fold: (*a*) the carrying out of long-term experiments with large animals in numbers and in isolation which could not be conducted at the smaller research stations; (*b*) the breeding of selected stock of various kinds necessary to research work in large numbers and of known pedigree. Dr. Gordon, a Scot, with unlimited energy and enthusiasm, and who is widely known for his research into "scrapie" and "louping-ill," has not only directed the research work but changed the antiquated Estate Farm into an ultra-modern farm with silos and an ingenious combination of elevators and feed mill. The horse-power has largely been replaced with tractors and combines.

At the famous Ministry of Agriculture Research Station, Weybridge, the genial Professor of Research, Dr. Dalling, another Scot, makes short stays between committee meetings in all parts of the Kingdom. Associated with him are a group of men well known in the field of veterinary research: Doyle, Edwards, Green, Asplin and others.

Dr. Doyle, the man who discovered Newcastle disease, has made extensive trials of hog-cholera tissue vaccine and reports favourably, providing the virus is virulent. All depends on the quality of the virus. Important research is being carried on into mastitis, hog cholera, grass disease of horses, swayback in lambs (copper deficiency), avian leucosis, Newcastle disease and Johne's disease.

Speaking of Newcastle disease, England suffered from a severe outbreak this summer due to the importation of dressed poultry from Hungary. It was a costly epizootic but is being eradicated by slaughter and through sanitation. The virus was carried from the city restaurants to the poultry farms in garbage. The McEwen *B. abortus* strain 45/20 has been replaced by the U.S. strain 19 in a country-wide campaign of calfhood vaccination.

Not only in Scotland but also in England the Ayrshire breed is popular. This is chiefly because the Ayrshire breeders were far-sighted and eradicated tuberculosis from their herds 20 years ago. While there is much interest in the Holstein cows, the dairyman likes to believe that they are not as "hardy" as the Ayrshire. This prejudice will disappear and within 25 years the "black and white" breed will be populating the hills and meadows of Great Britain; a Dutch invasion via Canada.

MEMOIR

John Willett, M.V.O., M.R.C.V.S.

John Willett, probably the last of the great horse practitioners of London to be in active practice, died on December 16th, 1947, aged 77 years.

He was a native of Middlesex, being born at Staines on April 27th, 1871. His father, Albert Willett, a registered veterinary surgeon, practised in the town. John was educated at a local school and at Cranleigh. Two of his brothers became veterinary surgeons, Frederick the eldest son and Albert Ernest the youngest. Although John always wanted to be a veterinary surgeon his father had other ideas for his second son and after he left school he was indentured to a ship's chandler in the city of London. John got on well in his job and he made many contacts which were to be useful in later years, but in his own words "he could not stomach the thought of being tied to a desk in an office for the rest of his life." He stuck it for about two years. Then he approached his father and asked to be allowed to go to the Veterinary College.

He started at the Camden Town school and journeyed there daily from Staines. His father was a stern parent who believed in keeping a boy fully occupied in what might be reasonably called his leisure hours. John had no leisure: he had to get up early in the morning, milk a cow, take odd horses home from the forge, then clean himself up and go to Camden Town, arriving there by 9 a.m. To add a little austerity to the regimen he had perforce to walk to and from Waterloo. At night when he returned home there was a repetition of the morning tasks. When not occupied in these duties he helped in the forge and became reasonably competent as a farrier, which skill stood him in great stead in later years. It is not surprising that when the examination came round John's name was not in the list of approved candidates. He knew that if he stopped at Camden Town there would be no respite or time for study and somehow he persuaded his father to send him to the "Dick" College in Edinburgh from which he graduated M.R.C.V.S. on July 15th, 1896. His journeys to Edinburgh during his studentship were made by boat because it was cheaper than by rail.

After qualification he secured the post of assistant to Mr. Kitchen of Worship Street in the City of London. This was a very extensive equine practice and the assistants were kept hard at work. The biggest contract was that of the Great Eastern Railway. The company owned thousands of horses in London and the eastern counties. An engine was kept at the alert with steam up at Bishopsgate ready to convey the veterinary surgeon to outlying stations. A hectic ride with a clear line was one of the thrills in store for Kitchen's assistants.

After about three years at Worship Street Willett launched out on his own account. He purchased the old-established practice of Mr. Barker in Albany Street, Regent's Park. This was another equine practice possessing two forges, one at Park Crescent Mews, Marylebone, and another at Knightsbridge. There were many big contracts including those of Harrod's, Marshall & Snelgrove's, Debenham & Freebody's and Marshall's Dairies.

About this time Willett married, his wife being Gray Agnes Woosman, the daughter of a solicitor of New Town, Montgomeryshire. They set up house at Harley Place. It is interesting to note in passing how times have changed. In the mews behind their house there were at that time between 200 and 300 horses, many of them being the carriage horses of the Harley Street physicians and surgeons. It was in these mews that milking asses were kept, asses' milk being a favourite prescription of some of the specialists.

John Willett had a prosperous practice. It was one devoted largely to the cab and carriage horse and the light delivery horse but even in the early days there was a cloud on the horizon—a cloud at that time "no bigger than a man's hand"—the internal combustion engine. About 1906 the horse began to be displaced, the light delivery horses of the great stores being the last to go. They went after the 1914-18 war.

During the 1914-18 war Willett was employed on remount work and also as a civilian veterinary surgeon to the London district. He was attached to the Royal Horse Guards and the 1st Life Guards stationed at Albany and Knightsbridge barracks. He also acted for the Guards units stationed at Wellington and Chelsea barracks and the R.A.S.C. at Kensington. He was in charge of a veterinary hospital at Edward Street, Kensington.

For his war work he was mentioned twice in civilian despatches and after the war, on the recommendation of Col. Sir George Halford, Col. Fitzgerald and Lord Penrhyn, he was appointed Honorary Veterinary Surgeon to the King. Thus began his association with the Royal Family as a court official. He was a guest in the Abbey for the Jubilee of King George V and also at the Coronation of King George VI. In the latter instance he had the unique experience of receiving two invitations—one in virtue of his court appointment and the other as President of the R.C.V.S. He received the Jubilee and Coronation medals. During his last illness he received an invitation from Princess Elizabeth to attend her wedding and party.

Although busily occupied in his practice John Willett took an active interest in professional affairs. He was a member of the Central and Royal Counties Societies and served as President of both. It was gratifying to him to know that, at its last meeting prior to his death, the latter Society elected him an Honorary Associate. Elected in 1920 to the Council of the R.C.V.S., he became President in 1936. He was veterinary surgeon to the International Horse Show at Olympia and White City, to the Richmond Show and to the London Cart and Van Horse Societies and to the Suffolk Horse Society, while he acted as examiner of shoeing smiths at the Royal, Royal Counties and other shows.

Mr. Willett was employed as veterinary surgeon by the Sun, the Yorkshire, General Accident insurance companies, and by Lloyd's: it was whilst entering Lloyd's building on May 16th, 1947, that he met with the accident which led to his subsequent illness and death.

John Willett was a man who enjoyed life and the good things thereof. He was bluff and hearty, somewhat pompous in manner but kind and courteous and had a heart of gold. He was always "well turned out" and had very rigid ideas as to the manner in which a professional man should conduct himself. His views and his integrity was likewise on the highest plane. His was a strong character: he called a spade a spade and made no bones about it. This sometimes would evoke some resentment from those he assailed but all, even those whom he would chastise, would agree that John Willett spoke with no hidden guile and that his words came straight from the heart and were founded on the deep conviction that he was doing his duty according to his conscience.

As indicated earlier, after the first World War the internal combustion engine made great inroads on his practice; in a few years his big contracts were gone and he had to close his two forges. Such a calamity would have daunted many a man, but not Jack Willett. There were other avenues which could be ex-

plored and he set out to develop them. He built up a very successful and lucrative small-animal practice and turned his great knowledge of horses to account by specialising in the examination of high-class riding animals and thoroughbreds. His judgment was good and he soon became recognised amongst horse people as an expert on whom they could rely with confidence. His services were in request throughout the length and breadth of the country. This specialised equine work became his chief occupation. He was happy in this sphere and the sad years when he saw his town horse work dwindling were fast becoming just a sentimental memory.

And so things continued, with his services in ever increasing demand, up to the outbreak of the war in 1939. The type of work he had cultivated vanished, for the hunting, fishing and shooting people went to the war as from time immemorial they have been amongst the first to answer the call. The evacuation of London played havoc with his small-animal practice. In the face of this calamity he stood firm at his post in Marylebone Road, remaining there even through the terrible days of the blitz. His early city experience enabled him to take up a position under his friend Lord Portal whilst at the same time he was able to pay attention to his depleted practice. When the late W. S. King died he undertook to manage for the widow the large horse practice in the East End and also to conduct the business connected with Lloyd's. He put his whole heart and soul into the work and the practice continued to prosper even beyond W. S. King's high standards. It was whilst employed in this practice that he met with his accident. Willett in his time had been connected with many famous veterinary legal cases. Probably his greatest case was that appertaining to the famous Windsor Lad. He was at the very centre of this controversy, acting for the Sun Insurance Company. No man could have conducted the part he was called upon to play with greater dignity.

John Willett suffered two serious setbacks in his professional life, due to wars and the motor car, which would have been sufficient to daunt most men. On each occasion he fought back and came up smiling. These incidents were as naught compared with two other blows which wounded him deeply and from which he never really recovered. The first was the death of his wife in 1917, the second occurred whilst he was President of the Royal College of Veterinary Surgeons. As a result of a speech which he made at the annual luncheon, a speech which was loudly applauded from all parts of the room, he was threatened with a legal action. Subsequent events caused him to believe that he had not been accorded that measure of support he felt he had a right to expect and he resigned. There were many men who thought likewise and they rallied to his aid.

John Willett was throughout his life a happy warrior: he worked hard, lived well and feared none. He was a great host and he never let the side down.

J. McC.

Quarterly Meeting of Council, N.V.M.A.

Summary of Proceedings

The President, Mr. L. Guy Anderson, conducted a well attended meeting at the Connaught Rooms, Kingsway, W.C.2, on Friday, January 16th, when the Council of the Association met for its first session in 1948.

Consideration of committee business was preceded by pleasing features in the receipt of appreciative messages from foreign delegates who had attended the Congress in Edinburgh and the voicing by the President, on behalf of the Association, of warm congratulations to Dr. W. S. Gordon and Mr. W. L. S. Macintosh upon the conferment of the C.B.E. in the New Year Honours. Another precedent item, the Secretary's report on membership, revealed a decline from 3,190 after the last quarterly meeting to 3,133, an accession of 65 new members being more than offset by a sadly long obituary list, a number of resignations (due mainly to retirement) and the removal of names under article 35, the effect of which is largely concentrated into this period of the year.

The Parliamentary and Public Relations Committee, through a sub-committee, has defined the publicity policy of the N.V.M.A. as being "to keep the public informed by a continuous presentation of the considerable contribution made by the profession to the community." The key to the achievement of this aim is the establishment and maintenance of contact, both personal and by the publicly spoken and written word; in this connection the duties of the Public Relations Officer were outlined and his first report on the measures he has taken to fulfil them was received with satisfaction.

Council was glad to learn that progress is being made in the preparation of a pamphlet on the N.V.M.A. and its meaning to the profession, to be made available to all new graduates; also of the suggestion of co-operating with other veterinary bodies in the presentation of an exhibit at the Dairy Show in October, typifying the profession's work for the dairying and poultry industries.

A report from the Technical Development Committee on So-called Skin Tuberculosis of Bovines and its relation to the Tuberculin Test was approved for issue to members after some textual amendment and a prolonged argument concerning the title, resulting as above, in which the necessity of avoiding a designation suggesting that the true nature of the condition has been determined was common ground.

The committee also presented a note on Johne's disease, declaring that at the present time there is no specific allergic test that can be recommended for diagnosis, but stressing the importance of early detection, if possible, by other means, *e.g.*, by careful watch for the clinical suspect, followed by microscopic examination of faeces. In the light of these findings measures for control of the disease by the farmer were put forward as revised recommendations for the existing Control Scheme.

The metabolic diseases of livestock are under investigation by this Committee.

The report of the still remarkably comprehensive activities of the General Purposes and Finance Committee indicated, at the outset, that the Ministry of Agriculture are now ready to resume discussion on the review of the Calfhood Vaccination Scheme. Members of Council expressed concern as to the non-availability of Strain 19 vaccine—a matter which has been taken up strongly by the Association—and it was agreed to suggest to the Ministry that it should issue to the farming Press, as well as to *The Veterinary Record*, an explanatory statement of the position.

Another matter much in the minds of members was the problem of new cars. The President intimated that the General Secretary and his staff were labouring unceasingly to implement the scheme worked out by the Association in conjunction with the Society of Motor Manufacturers & Traders and that, as a result, there had been a distinct improvement in the position. Hard work, however, and the agreement of the S.M.M.T. to give sympathetic consideration to cases sponsored by the Association, were insufficient to overcome a deplorable situation; the fact remained that the cars just were not there. The Committee minuted the modest but welcome degree of compensation in the matter of transport represented by the sanctioning of the use of cars for social and relaxation purposes and for attendance at meetings, recorded in our issue of December 13th.

At the instance of the North Wales Division the Association is to inform the Ministry of Agriculture of its desire that the whole matter of the control of production of biological products, also of their standardisation, be added to the list of subjects which they have agreed to discuss with the N.V.M.A. It was agreed, furthermore, that at an opportune time, discussions should be re-opened with the manufacturers concerned on the question of the restriction of distribution of certain of their products entirely to the veterinary profession.

The dishorning of cattle is a matter of major interest to the farming community just now; therefore it is worthy of note that the Ministry is to be urged to proceed with its order so amending the Animals Anaesthetic Act, 1919, as to permit the use of a local anaesthetic for the operation of dishorning cattle over one month old.

As was pointed out from the Chair, the repetition by the Danish Veterinary Association, through its President, Dr. Plum, of its invitation to a party of British veterinary surgeons' children to spend their summer holidays in Denmark is the more generous this year in that, to meet currency restrictions, their hosts are to meet all expenses following arrival of the group in Denmark.

Resumption of Relations with the Ministry of Agriculture

Both this report and that of the Home Appointments Committee made reference to the resumption of relations with the Ministry of Agriculture, while the only resolution before the meeting, from the Association of Veterinary Inspectors, which was passed at its meeting on September 27th, 1947, and which was felt by the Council to be of much significance, was in the following terms:—

"That this meeting of the Association of Veterinary Inspectors, having considered the recent correspondence in the *Record* between the N.V.M.A. and the Minister, confirms the assertion made by the N.V.M.A. that there is widespread dissatisfaction with the status of the whole-time veterinary staff within the Ministry."

In a statement on this matter the President said that Council would remember that at the special meeting of Council a resolution was passed which it was hoped would make possible the resumption of negotiations between the Ministry and themselves, and he was given authority to amend that resolution in the light of advice received. That resolution was sent to the Minister, who replied in very pleasant terms to the effect that its adoption made the resumption of normal relations possible, without prejudice on either side to the salaries issue, and that he would arrange for the Permanent Secretary to get in touch with them to arrange for a meeting to take place. They had a preliminary meeting with Sir Donald Vandepeer and other Ministry advisers on December 12th, which was in effect to survey the field for future discussion. The resumption of relations with the Ministry is in accord with the oft-repeated policy of the Association that it was prepared and anxious to co-operate with the Ministry on all matters pertaining to animal health, despite the "salaries dispute." The President had written to Sir Donald a few days previously, pointing out that the Association now had further evidence to bring forward in support of its case for improving the status of veterinary surgeons in the Government service and asking for an opportunity of putting this before him. To that letter a reply had been received to the effect that if the Association had new facts and arguments that it wished to bring to the notice of the Department and the Minister, Sir Donald would be very willing to call a meeting in the near future. "I think," concluded the President, "that marks some considerable progress in our affairs. I feel reasonably optimistic that good will come from this projected meeting. I propose to reply stating that we shall be pleased to go to the Ministry in the near future." Council went into committee to receive from the President a statement on the new evidence.

Further talks are also to take place with the Ministry on the proposed revision of the Scheme for the Control of Certain Diseases of Dairy Cattle, with special reference (as indicated in the report of the Veterinary State Medicine Committee) to the opinion of the third party in this matter, the N.F.U., that no support would be forthcoming for any scheme which was confined mainly to advice and which did not include the treatment of stock for disease —a view which was reflected in a resolution from the Derbyshire Division, which, at the instance of Mr. David Campbell, demanded a much extended scheme.

Council adopted the Committee's recommendation of the following scale of fees for vaccination of pigs against swine fever with crystal violet vaccine, to replace the scale previously suggested: 12s. 6d. for up to five pigs, followed by 2s. 6d. each pig over that number, except in the case of pigs over 70 lb., when a further 1s. per head should be added; these fees to include the cost of vaccine, mileage to be charged extra.

The Ministry having agreed to furnish the Association with a broad outline of the bovine tuberculosis eradication plan which they propose to adopt, further consideration of what the Association can do to further eradication in this country has been deferred until this information is available.

Many matters arising out of the development of schemes of free treatment have occupied the Organising Committee, notably a suggestion by the R.S.P.C.A. that a standard fee be arranged for cases dealt with by veterinary surgeons under the Decentralised Scheme. The Committee's recommendation—accepted by Council—was that there be a standard fee of 3s. 6d. to include medicine, but, in exceptional cases—to permit the provision of the best treatment available for poor persons' animals—that an additional fee should be charged where expensive remedies are involved. Another suggestion emanating from the R.S.P.C.A., namely, that the word "veterinary" be included in the title used for their clinics—which would then read "R.S.P.C.A. Veterinary Clinic—conducted in conjunction with the N.V.M.A."—is to be referred to the Royal College for a ruling on the use of the word "veterinary" in this connection. A ruling is also to be sought on the ethical aspect of the practice adopted in some districts, of exhibiting the names of the attending veterinary surgeons at R.S.P.C.A. clinics.

The Overseas Committee, with the co-operation of visiting members, again has been busily engaged in promoting the interests of those in the colonies and dependencies—an especially responsible task in this era of post-war colonial planning. In particular, the Committee is taking full advantage of the opportunities presented by the appointment of a salaries commission to investigate the condition of the Civil Service in East Africa. A deputation received by the Under-Secretary for the Colonies, has made recommendations on the lines agreed by the Committee for reinforcing the post of veterinary adviser and the Association is awaiting, also, a reply to the deputation's request for a clear-cut statement of policy in regard to the status of Colonial Veterinary Departments.

The President, in the course of a brief verbal report, said that each of the sub-committees of the Agricultural Programme Committee surveying different species of farm animals, had presented certain recommendations for action which the Association could take as a short-term programme. Most of them were measures which rightly could be included in the work of certain of the standing committees. Much of this activity was under way and before the next meeting a proper report would be drawn up.

The Editorial Committee reported the appointment of a sub-committee with the following terms of reference: "To consider what steps, if any, may now be taken to improve *The Veterinary Record* as a scientific journal and as the organ of the profession," deeming that the time has arrived to plan ahead for the eagerly anticipated era of more liberal provision of paper for the publication of scientific journals. The sub-committee has supplemented its own ideas by inviting suggestions from readers which are now under careful consideration by its members, the Chairman of the Committee pointing out that it is not too late for further suggestions to be submitted.

The report made reference to the very helpful collaboration afforded the Editor, so far as his duties as Public Relations Officer allow, by Mr. Geoffrey West since his arrival at Headquarters.

The Southport Congress

The formidable task of developing an attractive and well-balanced programme for each successive Congress is entered upon by the newly-appointed Provisional Committee at a very early stage in the Association's year. For the Southport meeting, under the Chairmanship of Professor J. G. Wright and with Mr. H. Raynor Hewetson as Hon. Local Secretary, the Committee has made a notable innovation in deciding, in the interests of ease of travel, that the week shall run from Wednesday to Wednesday (September 8th to 15th inclusive). On this point, at the instance of Council, enquiry is to be made of the Ministry of Food as to how this arrangement would fit in with the system of rationing.

Five papers are proposed, with a Public Address which will be an occasion indeed if, as is hoped, the speaker is Sir John Boyd-Orr and his subject "The World Food and Agriculture Situation." The fact that the operations and demonstrations, to which a whole day is to be devoted, are to take place at the University of Liverpool's Hospital and the Field Station at Leahurst, is a guarantee of their value and success.

The social side is being well catered for. The "Lancashire" will entertain at the outset, while Southport Corporation, which is providing accommodation in the Cambridge Hall for the sessional meetings, is giving a Civic Reception. It is hoped that the Committee will find it possible to retain the Annual Dinner. Members may rest assured that the excursions, between them, will meet everyone's taste in relaxation and enjoyment, and the social programme will close with that helpful and happy feature, the Victoria Veterinary Benevolent Fund Dance.

The Zoological Society of London has received a European bison bull from the Duke of Bedford, at Woburn—the first European bison that the Zoo has had for some years. There are not more than a hundred such bison left in the world. Some of them are in Poland, some in the Caucasus, and there are a few in zoos in Sweden, Germany and Holland.

* * * * *

Weekly Wisdom

Agriculture has a most vital role for the future both as a business . . . and as a healthy and satisfying way of life for a large number of our people.—Sir William Goodenough, Chairman of Barclay's Bank.

N.V.M.A. CONGRESS, 1948

List of Hotels in Southport *

	Charge per Day	
	Full Board	*Bed and Breakfast*
LICENSED HOTELS		
Prince of Wales Hotel, Lord Street, Southport (*Headquarters*) ...	30/–	—
Palace Hotel, Westcliffe Road, Birkdale	25/– to 35/–	—
Bold Hotel, Lord Street, Southport	25/–	16/6
Crown Hotel, Liverpool Road, Birkdale	—	12/6
Queen's Hotel, Promenade, Southport	25/–	—
Scarisbrick Hotel, Lord Street, Southport	25/–	—
	21/– 7 days or over	
CONDITIONALLY LICENSED HOTELS		
Alexandra Hotel, Alexandra Road, Southport	25/–	—
Belle Vue Hotel, Lord Street West, Southport	From 35/–	—
Clifton Hotel, Promenade, Southport	22/6 to 30/–	—
Mornington Hotel, Hoghton Street, Southport	23/6 to 24/6	15/– to 16/–
UNLICENSED HOTELS		
Carlton Hotel, Lord Street, Southport	25/–	—
Gables Private Hotel, Hoghton Street, Southport	21/6 to 23/6	—
Sandringham Hotel, Promenade, Southport	21/– to 25/–	Saturday to Saturday bookings only
Waverley Hotel, Promenade, Southport	25/–	—
PRIVATE HOTELS AND BOARDING HOUSES		
Mrs. E. Bartle, Seafield, 2, Irving Street, Southport	14/6	—
Chantrey House, 7, Albert Road, Southport	18/6	12/6
Easemore Private Hotel, 3, Portland Street, Southport	16/6	11/6
Eyredene, 8, Knowsley Road, Southport	17/6	10/6
Franklyn Hotel, 65–65a, Promenade, Southport...	21/–	—
Mrs. N. D. Holt, Derby House, 6, Knowsley Road, Southport ...	17/6	10/6
Hopefield Private Hotel, 12, Albany Road, Southport	17/6	10/6 Saturday to Saturday bookings only
Messrs. Hulley & Shufflebottom, 31, Leicester Street, Southport ...	17/6	12/6
Ivanhoe Private Hotel, 87, Avondale Road, Southport	15/6	—
Knowsley Private Hotel, 2, Knowsley Road, Southport	17/6	10/6
Marlborough Private Hotel, 9, Church Street, Southport	14/–	10/–
Mr. J. W. Matthews, Barrowfield, 37, Leicester Street, Southport ...	18/6	—
Orleans Private Hotel, 8, Lathom Road, Southport	22/6	13/–
Queen's Gate Private Hotel, 49, Queen's Road, Southport	21/–	12/6
Russell Hotel, 56, Promenade, Southport	18/6	12/6
Stafford House, 18, Bank Square, Southport (Mrs. M. W. Howarth)	15/6	10/6
Stella Maris Private Hotel, 25, Promenade, Southport	18/6	12/6
Summerfield Private Hotel, 31, Leicester Street, Southport	17/6	12/6 Saturday to Saturday bookings only
Talbot Private Hotel, Portland Street, Southport	18/6	11/6
Tatley Private Hotel, 83, Manchester Road, Southport	17/6	12/6
Mr. H. Tyson, 39, Bath Street, Southport	15/–	10/6
Willow Bank Private Hotel, 117, Leyland Road, Southport	15/–	10/6 Saturday to Saturday bookings only

*** Members are advised to make reservations by March 25th, otherwise accommodation cannot be guaranteed.**

Statutory Register of Veterinary Surgeons

The Registrar of the Royal College of Veterinary Surgeons as Registrar under the Veterinary Surgeons Act of 1881, has in virtue of the powers conferred on him under Section 5(4) of the said Act, removed from the Register of Veterinary Surgeons the names of the undermentioned persons.

The last known address is given in each case.

Abbott, A. A.—Qualified December 17th, 1937.
Whitley Ridge, Brockenhurst, Hants.
Adams, J. E.—Qualified May 15th, 1895.
126, Fore Street, Kingsbridge, Devon.
Baker, H. H.—Qualified May 28th, 1892.
66, Charlotte Road, Wallasey.
Beck, Major D'Arcy Stewart.—Qualified March 7th, 1911.
C/o Glyn Mills.
Burke, J. A.—Qualified December 13th, 1924.
Pittance Farm, Cranleigh, Surrey.
Cooper, W. J.—Qualified July 13th, 1927.
83, Dawson Crescent, Welling, Kent.
Crapp, Capt. A.—Qualified July 6th, 1887.
C/o Lawson, Elliott & Lawson, 34, Wood Street, E.C.2.
Crooks, J.—Qualified December 20th, 1902.
Queen Street, Magherafelt, Co. Londonderry.
Custance, H.—Qualified December 15th, 1893.
Rowley Fields, Leicester.
Davis, Captain R. T.—Qualified July 10th, 1913.
31, Winn Road, Southampton.
Davison, W. R.—Qualified April 26th, 1884.
Wellington Street, Ballymena.
Devine, E. J.—Qualified December 13th, 1906.
123, Pepys Road, Wimbledon, S.W.20.
Donohoe, E. B.—Qualified December 19th, 1941.
59, Park Avenue, Sidney Parade, Dublin.
Dykes, A. F.—Qualified July 17th, 1908.
5, Home Farm Cottages, Hill End, St. Albans, Herts.
Erskine-Tulloch, D. R. D.—Qualified December 12th, 1899.
Barnwood, Oxted.
Foster, F.—Qualified April 28th, 1881.
19, Oak Street, Ellesworth, Maine, U.S.A.
Gregory, J.—Qualified April 14th, 1887.
11, Bridgewater Road, Walkden, Manchester.
Henderson, R.—Qualified March 31st, 1896.
162, Smithdown Lane, Liverpool.
Hewson, F.—Qualified December 16th, 1904.
Lower Farm, Throcking, Buntingford, Herts.
Lalor, A. D.—Qualified May 15th, 1890.
Bassett, Meadrow, Godalming.
McCreanor, Miss M.—Qualified July 7th, 1942.
407, Lytham Road, Blackpool.
McPhee, D. A.—Qualified December 14th, 1926.
Garrynamoie, South Uist, Lochboisdale.
Martin, W.—Qualified July 21st, 1933.
The Gables, Witney, Oxon.
Matthews, R. C.—Qualified March 28th, 1896.
9, Westmoreland Road, Barnes, S.W.13.
Maxwell, H. M.—Qualified April 18th, 1883.
C/o A.G. Dept., India Office, S.W.1.
Morford, R.—Qualified July 16th, 1902.
Rowdens House, Wells, Somerset.
Mullane, F. J.—Qualified December 13th, 1923.
Late Ministry of Agriculture and Fisheries.
Newbury, T. S. H.—Qualified December 10th, 1885.
C/o Derry & Toms, High Street, Kensington, W.8
Nicholl, E. McK.—Qualified July 7th, 1909.
14, Severn Street, Leicester.
Proud, F.—Qualified December 15th, 1925.
139, Corporation Road, Darlington.
Skelton, S. H.—Qualified December 13th, 1893.
Duncarn, Burrell Street, Crieff.
Smith, R. T.—Qualified March 25th, 1915.
The Little Bungalow, Melton Mowbray.
Smith, W. R.—Qualified July 21st, 1923.
Ferndale, St. James Park, Brechin, Angus.
Stewart, H. C.—Qualified July 20th, 1906.
C/o Holt & Co., 22, Whitehall, S.W.1.
Stokoe, R.—Qualified December 17th, 1901.
Kimbolton, Hunts.
Towne, A. H.—Qualified December 12th, 1894.
57, Heathland Road, N.16.
Whigham, W. B.—Qualified April 1st, 1884.
Lucero, La Moye, Jersey, C.I.
Wilshaw, E. A.—Qualified December 19th, 1900.
Modbury, Devon.
Young, J. E.—Qualified December 21st, 1894.
The Woodhouse, Longford, Derby.

Section 5(4) of the Veterinary Surgeons Act of 1881 reads as follows:—

> "Where the Registrar has reason to think that any person registered has ceased to practise, the Registrar may send by post to such person a notice enquiring whether or not he has ceased to practise or has changed his residence; and if the Registrar does not within three months after sending the notice receive any answer thereto from such person, the Registrar may within 14 days after the expiration of the three months send him by post in a registered letter another notice referring to the first notice, and stating that no answer thereto has been received, and if the Registrar does not within one month after sending the second notice receive any answer thereto, such person shall for the purpose of the present section be deemed to have ceased to practise, and his name may be removed accordingly."

The Registrar by order of the Council of the Royal College of Veterinary Surgeons, following a meeting of the Registration Committee held on Thursday, January 8th, 1948, has removed from the Register of Veterinary Surgeons the name of Mr. Charles Herbert Porter of "Lyndhurst," St. Johns Street, Huntingdon: he having been guilty of conduct disgraceful in a professional respect.

QUESTIONS IN PARLIAMENT

Agriculture (Feeding-Stuffs)

Mr. Spence asked the Minister of Agriculture when he expects to make his promised announcement regarding an increased allocation of animal feeding-stuffs; and whether he will consider revising the 1939 basis of allocation.

Mr. T. Williams: Any further announcement about increased supplies or revised methods of allocation of rationed feeding-stuffs must await the completion of an assessment of our future probable resources and an examination, which is now being carried out, of the best way of utilising them. I regret that I am unable to give a date.

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Public Health (Panel Doctors)

Sir H. Morris-Jones asked the Minister of Health what will be the position of panel practitioners on July 5th under his recent regulations when the National Health Insurance Act comes into operation who find themselves unable to take up service under it, but who intend continuing to practice.

Mr. Bevan: These practitioners, like others, will be able—if they wish—to take part in the new National Health Service after July 5th. The old National Health Insurance Service will be superseded by the new arrangements at that date. A doctor may also confine himself entirely to private practice.

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Educational Books (Paper Allocation)

Mr. Rankin asked the President of the Board of Trade if he is now prepared to grant a quota for educational books apart from the quota granted to books for export.

Mr. Belcher: I do not think it would be practicable to establish separate quotas for educational books, for books for export and for other books. A special allocation of paper may, however, be made for any educational and other essential books which could not otherwise be produced from a publisher's quota so that no essential book may be held up for lack of paper. A somewhat similar arrangement is in operation for books to be exported.

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Periodicals (Paper Allocation)

Sir E. Graham-Little asked the President of the Board of Trade whether he is aware that the *Lancet*, a medical journal of high repute, and with a continuous history of publication for over a century, has been obliged to inform intending subscribers that it is unable to accept any new entries, owing to the further reduction in allocation of newsprint; and whether he will revise this allocation.

Mr. H. Wilson: There is a general shortage of paper for all purposes and periodical publishers are necessarily finding difficulty in meeting the demands of new subscribers. There has, however, been no recent reduction in the quantity which the publishers of the *Lancet* may obtain and use. I regret that I cannot increase this quantity in present circumstances.

Farm Buildings (Repairs)

Mr. Hurd asked the Minister of Agriculture if he will arrange for one officer of each county agricultural executive committee to be responsible for hastening the issue of permits to enable essential repairs to farm buildings to be carried out without delay; and if he will call for monthly progress reports.

Mr. T. Williams: Committees do not themselves issue licences for building work, and I assume that the hon. Member has in mind steps to expedite the handling of applications referred to Committees for investigation. In a recent circular Committees have been urged to avoid delay in dealing with applications, and I do not feel that any further instructions from me are necessary at the moment.

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Social Functions (Meals)

Mr. Marlowe asked the Minister of Food what quantity of food has so far been saved as a result of S.R. & O., 1955 (Meals at Social Functions), which limits to 100 the number of persons who may take a meal together; and what is the estimated saving over the next six months.

Mr. Strachey: I would refer the hon. Member to the Debate in the House on Thursday, November 27th.

Mr. Marlowe: Is the right hon. Gentleman aware that that does not answer my Question at all? Is not the reason for his answer the fact that he does not know whether he is going to make a saving or not, and, if he does not know, what justification is there for continuing the Order?

Mr. Strachey: The Order was never bound up with any suggestion that it would save an estimable amount of rationed foodstuffs. All the psychological reasons were given in that Debate.

Lieut.-Commander Braithwaite: In view of the right hon. Gentleman's answer, that this order was originally imposed on psychological grounds, may I ask whose morale has been uplifted by the granting of the licence?

Mr. Strachey: The suggestion is that if the licence was granted unduly easily, then nobody's morale was uplifted by it.

NOTES AND NEWS

Diary of Events

Feb. 10th.—Scientific Meeting of the Zoological Society of London, Regent's Park, N.W., 5 p.m.

Feb. 11th.—Meeting of the Editorial Committee, N.V.M.A., at 36, Gordon Square, W.C.1, 2.30 p.m.

Feb. 12th.—Glasgow V.C. Annual Ball, Cranston's Exchange Square, Glasgow.

Feb. 13th.—Meeting of the Biochemical Society, Westminster Hospital Medical School, 17, Horseferry Road, London, S.W.1, 2 p.m.

Feb. 17th.—Annual Meeting of the Eastern Counties Division, N.V.M.A., at Norwich (Bell Hotel), 11.30 a.m.

Feb. 17th and 18th.—N.A.A.S. (South-Eastern Province) Conference on "Farming Management To-day," in the Guildhall, Winchester, with farm demonstrations on silage. (*See Note.*)

Feb. 18th.—Annual Meeting of the British Society of Animal Production, at the R.A.S.E., 16, Bedford Square, London, W.C.1, 10.15 a.m.

Feb. 18th.—Meeting of the Ayrshire Division, N.V.M.A., at the Hannah Institute, Ayr, 2.45 p.m.

Feb. 19th and 20th.—Special meetings of Council, R.C.V.S., 10, Red Lion Square, W.C.1.

Feb. 21st.—Meeting of the Society of Women Veterinary Surgeons at the Conway Hall, Red Lion Square, W.C.1, 2 p.m.

Feb. 24th.—R.(D.)V.C. Annual Ball, at the Assembly Hall, 54, George Street, Edinburgh.

Feb. 24th.—Meeting of the Southern Counties Division, N.V.M.A., at Southampton (Polygon Hotel), 2 p.m.

Feb. 25th.—Annual Meeting of the South-Eastern Division, N.V.M.A., at Tunbridge Wells (Mount Ephraim Hotel), 2.30 p.m.

Feb. 27th.—Annual Meeting of the Royal Counties Division, N.V.M.A., at Reading (Caversham Bridge Hotel), 2.30 p.m.

Mar. 3rd.—Meeting of the N.V.M.A. Technical Development Committee, at 36, Gordon Square, W.C.1, 11 a.m.

April 7th, 8th, 9th.—N.V.M.A. Committees and Council.

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N.V.M.A. Southport Congress, 1948

Scientific Exhibition.—A scientific exhibition is being organised and the Provisional Committee would be glad to receive any photographs and sketches of interesting cases or unusual instruments, as well as the loan of X-ray films of similar value. These should be sent to the Hon. Local Secretary, Mr. H. Raynor Hewetson, M.R.C.V.S., 26, Princes Street, Southport.

Interpreters.—The Local Secretary would also like to hear from any members intending to be present at the Congress who are willing to act as interpreters and the languages in which they are able to give such assistance if required.

Sports.—It is desired to ascertain the numbers, ages and sexes of children that may be brought to the Congress, so that some sports arrangements may be made for them. In this matter, too, members are requested to send the information direct to the Local Secretary.

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Visit to Denmark (1948) by the Children of Veterinary Surgeons

As was intimated in our issue of last week, the Danish Veterinary Association has once again invited children of British veterinary surgeons to go to Denmark for a holiday this summer. They have, in addition, most generously offered to pay the children's expenses from the date of their landing in Denmark to the date of their departure because, owing to the present currency restrictions at this end, no money can be taken out of England to Denmark; return tickets only could be bought for the children. As members will be aware, the ban on travel abroad, with money, is to be lifted for some countries, but it is not certain yet whether Denmark will be one of them. If it is, well and good; if it is not, the children will be able to go just the same through the generosity of our Danish veterinary colleagues. It is hoped that at some future date, Danish children will be invited back to this country as our guests in exchange.

The suggested number for the party is 20 and the Danish Veterinary Association, through an announcement in their journal, are enquiring what ages the hosts and hostesses would like their children-guests to be.

Meantime, owing to the urgent necessity of making at least some preliminary arrangements with Messrs. Cook, would members kindly notify the General secretary, N.V.M.A., 36, Gordon Square, London, W.C.1, **as soon as possible** if they are interested. The period of the holiday will probably be early August to early September.

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R.C.V.S. Council Election, June 1948

The following nominations for election to the Council of the Royal College of Veterinary Surgeons have been received. Voting papers will be issued to members overseas early in February.

Name.	*Proposers.*
T. J. Bosworth ...	R. E. Glover, H. W. Dawes.
T. Hare	S. J. Motion, T. M. Mitchell.
A. B. Mattinson ...	H. W. Dawes, G. H. Wooldridge.
L. P. Pugh	W. Nairn, H. W. Dawes.
W. K. Townson ...	H. W. Dawes, T. Dalling.
J. F. D. Tutt	H. W. Dawes, G. P. Male.

The last day for the receipt of nominations for Inland Voting Papers is Tuesday, May 4th, 1948.

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PERSONAL

Birth.—Hignett.—On December 13th, 1947, at the Clarence Nursing Home, Tunbridge Wells, to Muriel (*née* Ashdown), wife of Samuel L. Hignett, a daughter (Rosemary Carol)—a sister for Tim.

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R.C.V.S. OBITUARY

Shedlock, Kathleen Webb (Mrs. K. W. Llewellyn Jones). Graduated Liverpool, December 19th, 1927. Died January 25th, 1948, after a long illness; aged 43 years.

Kathleen Shedlock

An Appreciation

Kathleen Webb Shedlock, whose death at the early age of 43 is announced in this week's *Record*, was at one time one of the foremost women veterinary surgeons.

Qualifying at Liverpool in 1927 she was among the first women to enter the profession and on her appointment as House Surgeon at the London College was the first to hold that post. The following year she set up in practice in Wimbledon with, as she was fond of telling me, a balance of £2 in the bank! Two years later she put up her plate in Esher, Surrey, where she remained until her marriage in 1936, building up a busy and successful practice. Universally liked and respected by her numerous clients, many of them still remember and enquire for her. During the short time she was in practice she was an active member of the Central Veterinary Society and in 1934 gave a joint paper on small-animal practice and diseases of cats—one of the first women to address the Society. There are many also who will remember her at the various congresses which she delighted to attend.

I worked with Kathleen Shedlock for two years as her assistant and came to know and love her well. Her ambition was to qualify in medicine and after her marriage to Dr. Llewellyn Jones of Hawarden, N. Wales, she attended Liverpool University as a medical student and in spite of constant ill-health succeeded in completing all but the final year of the course, when she was forced to give up.

She had been ill for years before her death and during the height of the London blitz in 1940-41 she was in the London Clinic for many weeks. I was visiting her almost daily at this time and would be amazed to find her apparently unmoved after a night of bombs and fire alarms. She always refused to regard her illness seriously and her devotion to her ten-year-old daughter and her determination to see her grow up kept her alive long after the doctors had given up hope.

The last time I saw Kathleen, in 1946, little of the old fire remained but I shall always remember her as a vivid personality, at times brilliant, self-willed perhaps but withal lovable.

R. E. H.

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ADDRESSES OF DISEASE-INFECTED PREMISES

The list given below indicates, first, the county in which are situated the premises on which disease has been confirmed, followed by the postal address and date of outbreak.

Sheep Scab:

Merioneth.—No. 2, Druid Farm, Druid, Corwen, Merioneth (Jan. 24th).

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DEVELOPMENTS IN COLONIAL ADMINISTRATION

In spite of what Mr. Creech Jones has described as "the troubled background in almost all regions of the world," 1947, in the territories of the British Colonial Empire has (says the Empire Information Service) been a year in which great progress has been made in adjusting to the changed conditions in the world, and in developing the economic, social and political institutions whose object is to "transform the dependencies in the Colonial Empire to responsibility . . ."

Speaking in the Colonial Estimates Debates on July 29th the Secretary of State pointed out that colonial progress was not a matter merely of directives from the Colonial Office in London. British territories are nearly all advancing to some degree of self-government, and Britain's basic task is to persuade the peoples of dependent territories to build up their own institutions with the acceptance of such policies as the U.K. believes will make for the betterment of these terriories. To do this it is essential for the Colonial Office to have the facts and figures on the basis of which to give practical aid to the Colonial peoples which will contribute to their well-being and, in turn, help them to contribute to mankind in general.

With this aim organisation in the Colonial Office has been strengthened and improved. By the end of 1947 there were advisers on nursing, education, labour, co-operation and social services, transport and surveys, and functional committees had been set up in connection with economic problems, labour co-operation and the welfare of Colonial peoples. Linked with these are special research committees covering such subjects as agriculture, health, economics, social services and fisheries. The importance of information services in Britain, with Foreign States and between Colonial territories themselves has not been neglected. In the Colonial Office the Information Services Departments have been reorganised and strengthened and the whole spirit of development has been manifest in the Bill providing for an entirely new Colonial Office building on the old site of the Westminster Hospital. In the meantime the Colonial Office has moved to Church House, Westminster.

The distribution of collated information on dependent territories began again during the year under review after a lapse of seven years. The first post-war Colonial Annual Report for 1946 was published by Hong Kong and showed the great and successful efforts that have gone into reconstruction [119]. Similar reports have been received from Singapore [125] and Malaya, while the reports from other territories such as Jamaica and British Guiana show that in the Colonies whose economy was not wrecked by war steady progress has been made in developing natural resources, social services and political institutions.

In addition to the information contained in these Annual Reports a comprehensive review of the years 1939-1947 in all Colonial territories has been the object of a Blue Book, Cmd. 7167, published by H.M.S.O. before the Colonial Estimates Debate to provide a survey of developments in the Colonial Empire since the outbreak of war [121]. Some of the results of the economic impact of war on the Colonies are shown in Cmd. 7224, Statistical Abstract for the British Commonwealth 1936 to 1945 (Trade and Commerce Sections) which was published in October.

In 1947 also, handbooks relating to the history, potentialities and developments of British Guiana, British Honduras, Cyprus, Gibraltar, Jamaica, Nigeria, St. Vincent, Sierra Leone, Zanzibar and Hong Kong were put into preparation, and during the Colonial Estimates Debate the Secretary of State foreshadowed future sources of information in the form of a rota of reports covering the four main regions of the Colonial Empire.

Plans for the reorganisation and training of the Colonial Service which were the subject of a White Paper last year have been put into practice with 120 Colonial Service cadets taking a 15 months course at Oxford, Cambridge and London Universities, designed to give the background and knowledge necessary to the work the cadets will eventually undertake. By the end of the year this first group of cadets had completed their course and a second group was already at work. In September the second part of the scheme was put into operation with the opening of a Summer School for Colonial Service Officers at Oxford [124]. This School followed by a further course of training lasting six months at Oxford, Cambridge and London Universities is for officers who have already completed a period of service in the Colonies and is aimed at giving an opportunity for clarifying experience already gained, for seeing the interaction of affairs between different Colonies and for further study in specific subjects. Some 90 officers representing 22 Colonial territories attended the Summer School preceding this second course.

General recruitment for the colonial services which re-opened in 1945 had by the end of 1947 brought over 3,000 men and women into the colonial services, and their value to the territories to which they are sent is shown by the fact that at least 40 per cent. of them had previously had experience in local government, finance, industry and commerce.

The first conference of its kind was held in November when the Governors of African Colonies met in London to discuss African political, administrative, economic and social affairs [130]. This conference was preceded by a similar meeting of Colonial Service officers concerned with Africa who met at Cambridge during the summer and discussed the problems of local government and the adaptation of native administrations. Both conferences were the forerunners of an extremely important conference which will be attended next year by unofficial and official members of the Legislative Councils of the African territories. —*Empire Information Service.*

CORRESPONDENCE

The views expressed in letters addressed to the Editor represent the personal opinions of the writer only and their publication does not imply endorsement by the N.V.M.A.

Correspondents should write as briefly as possible and letters should not exceed 350 words.

CAPONISING OF COCKERELS BY STILBOESTROL IMPLANT

Sir,—My attention has been called to a note on caponising in your question and answers column in the *Record* of October 25th last by Miss Joan O. Joshua. The question of availability and cost of diethylstilboestrol was raised.

I have noticed that diethylstilboestrol is available in this country in the form of pins suitable for clipping into the skin of cockerels. The dose suggested is one pin of 15 mg. for birds under three pounds body weight, and one or two pins for birds over that weight. The pins are sold to veterinarians at seven dollars per hundred.*

Yours faithfully,
F. H. Manley,
Professor, Depts. Bacteriology & Pathology, School of Veterinary Medicine.

Auburn, Alabama.
January 12th, 1948.

* Obtainable from the Pitman-Moore Co., Indianapolis.